**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

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| Date | 19 October 2022 |
| Team ID | PNT2022TMID14113 |
| Project Name | IOT Based Smart Crop Protection System For Agriculture |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

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| **S.No.** | **Functional Requirement** | **Sub Requirement** |
| 1 | User Registration | First method install the application  Signing up with g-mail or phone number  Creating a profile and upload the document  Understand the guidelines to follow. |
| 2 | User Confirmation | The Email or Mobile method enable to authenticate using the (OTP)of the user. |
| 3 | Accessing datasets | Data’s are use of sensors to track the performance of device connected to (IOT)cloud or database. |
| 4 | Interface sensor | IOT,a sensor interface is a bridge between a device any attached sensors. |
| 5 | Mobile application | It is used to provides information about weather forecasting and animal entering in crop field then signal to user. |

**Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

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| **S.No.** | **Non-Functional Requirement** | **Description** |
| 1 | **Usability** | This make the users complete the task accurately and user can operate the farm protection through the smart protection system. |
| 2 | **Security** | It was created to protect the crops from animals. |
| 3 | **Reliability** | It has a capacity to recognize the disturbance near the field and doesn’t give a false caution signal. |
| 4 | **Performance** | When animals attempt to enter the field, IOT devices and sensors alert the farmer via message. |
| 5 | **Availability** | We can defend the crops against wild animals by creating and implementing resilient hardware and software.  Highly demand available system for24x7 operations. |
| 6 | **Scalability** | This system’s must handle expanding load & data retention needs integration of computer vision algorithms with IBM cloud and services makes it more efficient to retrieve photos at scale, enhancing |